

REMARKS

Claims 1-35 are pending in the present application. Claims 1-35 have been examined and are rejected. In the above amendments, claims 1, 7, 10-12, 18, 20, 23, 30 and 31 have been amended. Therefore, after entry of the above amendments, claims 1-35 will be pending in this application. Applicant believes that the present application is now in condition for allowance, which prompt and favorable action is respectfully requested.

Rejection of Claims 1, 2, 7, 10-15, 18-22 and 32-35 Under 35 U.S.C. §103(a)

Claims 1, 2, 7, 10-15, 18-22 and 32-35 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Willey *et al* (U.S. Patent No. 5,854,785) in view of Lee *et al* (U.S. 2003/0174677A1) and further in view of Wang *et al* (U.S. Patent No. 6,178,164).

Willey describes a method of moving a wireless device into soft handoff quicker at the start of a call. A mobile station monitors a paging channel from a single base station while in the Idle state. (See column 1, lines 65-66). The mobile station originates a call by sending an Origination Message on an access channel to this base station. The base station then sends a Channel Assignment Message on a paging channel to the mobile station. From this point onward, the base station can transmit on a forward traffic channel to the mobile station, and the mobile station can transmit on a reverse traffic channel to the base station. To add one or more additional base stations for soft handoff, the mobile station can send pilot measurements on the reverse traffic channel to the base station. The base station can then send a new active set on the forward traffic channel to the mobile station. This active set contains all base stations designated to communicate with the mobile station, including any newly added base stations. (See column 2, lines 36-56.) To get the mobile station into soft handoff quicker, Willey describes a proposal to send the pilot measurements on the access channel, instead of waiting until the traffic channels have been established. (See column 2, lines 61-66.) Willey proposes continuing to make pilot measurements while sending access probes on the access channel so that current pilot measurements are sent in each access probe. (See column 5, lines 43-47.)

Lee describes a method for performing handoff by a mobile station from a base station A that does not support new common channels to a base station B that supports the new common channels. A Broadcast Control Channel (BCCH) is one of the new common channels. The mobile station receives an Extended CDMA Channel List message (ECCLM)

and an Extended System Parameter message (ESPM) of the paging channel from base station B. The ESPM includes a BCCH_SUPPORTED field that indicates whether the BCCH is supported or not supported by base station B. (See paragraph 0045.) The ECCLM includes a BCCH_INCL field that indicates whether reference information of the BCCH is included in the ECCLM. The reference information includes BCCH frequencies, a data rate, a code rate and Walsh information required to decode the BCCH. (See paragraph 0046.) If the reference information is included in the ECCLM, then the mobile station extracts this reference information and uses it to monitor the BCCH. (See paragraphs 0047 to 0049.)

Wang describes a method of performing idle handoff. A mobile station measures the energy levels of pilot signals transmitted by base stations in a handoff list. The mobile station then sends the measured energy levels to a base station controller that controls all of the base stations in the handoff list. The controller compares the measured energy levels and provides an energy level list of base stations. Handoff of the mobile station is performed according to the energy level list. (See the Abstract, and column 4, line 62 to column 5, line 15.)

Claim 1 of the present invention, as amended, recites:

“A device in a wireless communication system, comprising:
a reselection unit operative to provide an indication to perform cell
reselection from a first base station to a second base station;
a control unit operative to initiate a cell reselection procedure for the second
base station in response to the indication from the reselection unit, wherein the first
base station is a current serving cell and the cell reselection procedure selects the
second base station as a new serving cell; and
a monitoring unit operative to receive from the second base station sufficient
system information to process a paging channel for the second base station, to
determine time intervals assigned to the device for the paging channel based on the
sufficient system information, to start monitoring the paging channel upon reception
of the sufficient system information from the second base station and prior to
completion of the cell reselection procedure, and to monitor the paging channel
during the time intervals assigned to the device to detect for paging messages sent by
the second base station to the device.”

Applicant submits that claim 1 is patentable over Willey in view of Lee and Wang for at least the following reasons.

First, the combination of Willey, Lee and Wang does not disclose “a monitoring unit operative to receive from the second base station sufficient system information to process a paging channel for the second base station,” as recited in claim 1. The rejection indicates that Willey fails to disclose this feature of claim 1. The rejection states that Lee discloses this feature in paragraphs 0043 to 0048.

In paragraphs 0043 to 0048, Lee discloses a mobile station receiving the ECCLM and ESPM messages on a paging channel from base station B. The mobile station already has information to process the paging channel (which might have been obtained via a separate procedure) in order to receive the ECCLM and ESPM from the paging channel. Lee also discloses using the ECCLM and ESPM to determine whether base station B supports the BCCH. However, Lee does not disclose obtaining sufficient system information to process the paging channel from the ECCLM and ESPM. Hence, Applicant submits that Lee does not disclose this feature of claim 1.

Second, the combination of Willey, Lee and Wang does not disclose “determine time intervals assigned to the device for the paging channel based on the sufficient system information,” as recited in claim 1. The rejection states that the combination of Willey and Lee fails to disclose time intervals determined based on the sufficient system information. The rejection states that Wang discloses this feature in column 6, lines 35-56.

In column 6, lines 35-56, Wang discloses acquisition processing upon power-up of mobile station 2. (See column 6, line 8-9.) After detecting a pilot signal with energy above a predetermined threshold, mobile station 2 attempts acquisition of a synchronization channel to obtain timing information. Mobile station 2 then monitors a paging channel in accordance with the timing information. The synchronization channel does not convey “time intervals assigned to the device for the paging channel,” as is known in the art. The timing information disclosed by Wang presumably relates to chip-level timing. Hence, Applicant submits that Wang does not disclose this feature of claim 1.

Third, the combination of Willey, Lee and Wang does not disclose “start monitoring the paging channel upon reception of the sufficient system information from the second base station and prior to completion of the cell reselection procedure,” as recited in claim 1. The rejection indicates that Willey discloses this feature of claim 1. However, Willey does not

disclose receiving sufficient system information to process a paging channel, as stated in the rejection. Hence, Willey does not disclose starting monitoring of the paging channel upon reception of the sufficient system information (since Willey does not even receive the information).

Fourth, the combination of Willey, Lee and Wang does not disclose “monitor the paging channel during the time intervals assigned to the device to detect for paging messages sent by the second base station to the device,” as recited in claim 1. The rejection states that Wang discloses this feature in column 6, lines 35-56. However, as discussed above, this section of Wang does not disclose time intervals assigned to the device and hence does not disclose monitoring the paging channel during these time intervals.

For at least the above reasons, Applicant submits that claim 1 is patentable over Willey in view of Lee and Wang. Claims 2 and 32-35 are dependent on claim 1 and are patentable over Willey in view of Lee and Wang for at least the reasons noted for base claim 1. Independent claims 7, 10 and 11 have each been amended to recite the features noted above for claim 1. These claims are also patentable over Willey in view of Lee and Wang for at least the reasons noted for claim 1.

Claim 12 of the present invention, as amended, recites:

“A device in a wireless communication system, comprising:
a reselection unit operative to provide an indication to perform cell
reselection from a first base station to a second base station; and
a control unit operative to, in response to the indication from the reselection
unit,
direct reception of designated system information from a control channel
for the second base station,
use successful or unsuccessful reception of the designated system
information as reconfirmation of ability to decode the control channel for the
second base station prior to performing cell reselection to the second base station,
if the designated system information from the second base station is
received successfully, switch to the second base station and initiate a cell
reselection procedure for the second base station, wherein the first base station is

a current serving cell and the cell reselection procedure selects the second base station as a new serving cell, and
skip the cell reselection procedure if the designated system information is not received successfully.”

Applicant submits that claim 12 is patentable over Willey in view of Lee and Wang for at least the following reasons.

First, the combination of Willey, Lee and Wang does not disclose “a control unit operative to ... direct reception of designated system information from a control channel for the second base station,” as recited in claim 12. Willey discloses a wireless device monitoring paging channels, and not a control channel, in column 3, lines 51-67. The rejection states that Lee discloses this feature in paragraphs 0043 to 0048. However, Lee discloses a mobile station receiving the ECCLM and ESPM of a paging channel, and not a control channel, in paragraphs 0043 to 0048. The distinction between control channel and paging channel may be relevant with regard to claim 12 if, for example, the control channel is used to perform reselection procedure whereas the paging channel is monitored after completing reselection procedure.

Second, the combination of Willey, Lee and Wang does not disclose “use successful or unsuccessful reception of the designated system information as reconfirmation of ability to decode the control channel for the second base station prior to performing cell reselection to the second base station,” as recited in claim 12. This feature is disclosed in paragraphs [1009] and [1047] of the present application.

Third, the combination of Willey, Lee and Wang does not disclose “if the designated system information from the second base station is received successfully, switch to the second base station and initiate a cell reselection procedure for the second base station,” as recited in claim 12. The rejection indicates that Willey discloses this feature in column 3, lines 51-67. However, Willey does not disclose receiving designated system information from a control channel, as discussed above. Hence, Willey does not disclose initiating cell reselection procedure conditioned upon successful reception of the designated system information (since Willey does not even receive the information).

Fourth, the combination of Willey, Lee and Wang does not disclose “skip the cell reselection procedure if the designated system information is not received successfully,” as

recited in claim 12. The rejection states that Wang discloses this feature in column 9, line 65 to column 10, line 38. This section of Wang discloses foregoing reporting a base station if its pilot E_c/I_o is below a T_ADD level. Wang discloses foregoing reporting a base station when its pilot E_c/I_o is below the T_ADD level instead of skipping cell reselection procedure when the designated system information is not received successfully. Wang thus performs a different function using a different criterion than the function and criterion recited in claim 12.

For at least the above reasons, Applicant submits that claim 12 is patentable over Willey in view of Lee and Wang. Claims 13-15 are dependent on claim 12 and are patentable over Willey in view of Lee and Wang for at least the reasons noted for base claim 12. Independent claims 18 and 20 have each been amended to recite the features noted above for claim 12. Claim 19 is dependent on claim 18. Claims 21 and 22 are dependent on claim 20. Claims 18-22 are patentable over Willey in view of Lee and Wang for at least the reasons noted for claim 12.

Accordingly, the §103(a) rejection of claims 1, 2, 7, 10-15, 18-22, 32 and 33 should be withdrawn.

Rejection of Claims 23, 24, 26, 30 and 31 Under 35 U.S.C. §103(a)

Claims 23, 24, 26, 30 and 31 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Willey *et al* in view of Lee and Wang *et al* and further in view of Weaver, Jr *et al* (U.S. Patent No. 5,828,661). For independent claims 23 and 30, the rejection indicates that the combination of Willey, Lee and Wang discloses all of the features of these claims except for “ceasing to monitor the paging channel upon a termination event.” The rejection indicates that Weaver discloses “a system where a soft handoff ends when communication with the first base station is terminated.”

Claim 23 of the present invention, as amended, recites:

“A device in a wireless communication system, comprising:
a reselection unit operative to provide an indication to perform cell
reselection from a first base station to a second base station;
a control unit operative to initiate a cell reselection procedure for the second
base station in response to the indication from the reselection unit, wherein the first

base station is a current serving cell and the cell reselection procedure selects the second base station as a new serving cell; and

a monitoring unit operative to monitor a first paging channel for the first base station until a terminating event occurs at a time instant after the cell reselection procedure is initiated, to receive from the second base station sufficient system information to process a second paging channel for the second base station, to determine time intervals assigned to the device for the second paging channel based on the sufficient system information, and to monitor the second paging channel upon receiving the sufficient system information from the second base station and during the time intervals assigned to the device, wherein the monitoring of the first paging channel and the monitoring of the second paging channel overlap in time.”

Applicant submits that claim 23 is patentable over Willey in view of Lee and Wang and further in view of Weaver for at least the following reasons.

First, the combination of Willey, Lee, Wang and Weaver does not disclose “receive from the second base station sufficient system information to process a second paging channel for the second base station,” as recited in claim 23 and discussed above for claim 1.

Second, the combination of Willey, Lee, Wang and Weaver does not disclose “determine time intervals assigned to the device for the second paging channel based on the sufficient system information,” as recited in claim 23 and also discussed above for claim 1.

Third, the combination of Willey, Lee, Wang and Weaver does not disclose “monitor the second paging channel upon receiving the sufficient system information from the second base station and during the time intervals assigned to the device,” as recited in claim 23 and also discussed above for claim 1.

For at least the above reasons, Applicant submits that claim 23 is patentable over Willey in view of Lee and Wang and further in view of Weaver. Claims 24 and 26 are dependent on claim 23 and are patentable for at least the reasons noted for base claim 23.

Independent claims 30 and 31 have each been amended to recite the features noted above for claim 23. These claims are thus patentable over Willey in view of Lee and Wang and further in view of Weaver for at least the reasons noted for claim 23.

Accordingly, the §103(a) rejection of claims 23, 24, 26, 30 and 31 should be withdrawn.

Rejection of Claims 3-6, 8, 9, 16, 17, 25 and 27-29 Under 35 U.S.C. §103(a)

Claims 3, 4, 8 and 9 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Willey *et al* in view of Lee and Wang *et al* and further in view of Hafiz (U.S. Patent No. 6,505,042).

Claims 5 and 16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Willey *et al* in view of Lee and Wang *et al* and further in view of Persson (U.S. Patent No. 5,557,704).

Claims 6 and 17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Willey in view of Lee, Wang *et al*, and Persson and further in view of Alvesalo (U.S. Patent No. 5,384,824).

Claims 25 and 27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Willey *et al* in view of Lee, Wang *et al*, and Weaver, Jr *et al* and further in view of Anderson *et al* (U.S. Patent No. 6,161,013).

Claim 28 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Willey in view of Lee, Wang *et al*, and Weaver, Jr *et al* and further in view of Persson (U.S. Patent No. 5,557,704).

Claim 29 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Willey in view of Lee, Wang *et al*, Weaver, Jr *et al*, and Persson and further in view of Alvesalo (U.S. Patent No. 5,384,824).

Claims 3-6 are dependent on claim 1. Claims 8 and 9 are dependent on claim 7, claims 16 and 17 are dependent on claim 12. Claims 25 and 27-29 are dependent on claim 23.

Applicant submits that the combination of Willey, Lee and Wang does not disclose all of the features of base claims 1, 7, 12 and 23, as discussed above. Hence, the combination of Willey, Lee and Wang is an insufficient basis for the §103(a) rejection of dependent claims 3-6, 8, 9, 16, 17, 25 and 27-29.

Accordingly, the §103(a) rejection of claims 3-6, 8, 9, 16, 17, 25 and 27-29 should be withdrawn.

CONCLUSION

In light of the amendments contained herein, Applicant submits that the application is in condition for allowance, for which early action is requested.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

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